# SYSTEM AND METHOD FOR TRANSFER OF IP DATA
# IN AN OPTICAL COMMUNICATION NETWORK

## Abstract of the Disclosure

5    A system (100) to enable the transfer of Internet protocol (IP) format data (12, 14) over a point-to-multipoint passive optical network (PON, 16) is illustrated in FIG. 2. An exchange (102) is connected to a plurality of outstations (104-108) via an optical communication resource (24, 26-38) including a passive optical splitter (22) providing isolation to individual outstations. Media access control of

10    the plurality of outstations is administered by the exchange (102), with collision detection logic (112) in the exchange determining collision (158) of Internet protocol (IP) encoded data communicated thereto through the PON (16). The IP encoded data realises a transport mechanism through the PON. Each of the plurality of outstations (104-108) and the exchange (102) is adapted to pass

15    data in an IP format to and from the optical communication resource such that IP encoded data is transported, in use, directly between the outstation and the exchange.